

ABSTRAK

Smartphone users grow very rapidly. So it's unlikely that this will lead to increasing internet network users. But the amount of radio waves that can be used for data transmission depends on the amount of available bandwidth. To resolve the problem of limited bandwidth it takes a packet scheduler algorithm so that all users receive the same level of fairly.

Due to the limited amount of bandwidth used causes the packet scheduler algorithms needed to schedule data delivery. Packet scheduler is the algorithm used to allocate the resource blocks in the transmission of data to the user. Packet scheduler serves to improve the efficiency of bandwidth usage, providing data services to users with Quality of Service and the maximum level of fairness.

This study aimed to test the LTE network performance by analyzing the QoS parameters such as delay, packet loss ratio, throughput, fairness, and spectral efficiency To find out the results of the analysis, the author uses packet scheduler algorithm max throughput and proportional fair with multicell scenario simulated using LTE-Sim software release 5.

The results of this study is Max-Throughput algorithm has a value of 77% advantage in the throughput and spectral efficiency. While the Proportional Fair algorithm has a 253% advantage on fairness. In voip, proportional fair algorithm has 448% advantage in packet loss ratio and 1138% in value delay. And in video ,proportional fair algorithm has an advantage of 187% in value Packet loss ratio and 891% in delay value.

Kata kunci : Packet scheduler,LTE,QOS,Max Throughput,Proportional Fair.